

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

RECEIVED

17 AUG 2004

WIPO

PCT



Applicant's or agent's file reference BP107519	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA416)	
International application No. PCT/FI 03/00852	International filing date (day/month/year) 11.11.2003	Priority date (day/month/year) 12.11.2002
International Patent Classification (IPC) or both national classification and IPC D21G7/00		
Applicant METSO PAPER, INC. et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 6 sheets, including this cover sheet.  
  
☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand  10.06.2004	Date of completion of this report  16.08.2004
Name and mailing address of the International preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer  Pregetter, M  Telephone No. +49 89 2399-8379 

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/FI 03/00852

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-5 as originally filed

**Claims, Numbers**

1-6 as originally filed

**Drawings, Sheets**

1/1 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).  
☐ the language of publication of the international application (under Rule 48.3(b)).  
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority in written form.  
☐ furnished subsequently to this Authority in computer readable form.  
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.  
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/FI 03/00852

---

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes: Claims	1-6
	No: Claims	
Inventive step (IS)	Yes: Claims	1-6
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-6
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Reference is made to the following documents:

D1: US-A-4 642 164

D2: US-A-3 782 330

2. Document D1, which is considered to represent the most relevant state of the art, discloses (cf. figure 1 and column 3, line 6-column 4, line 26) the subject-matter of the preamble of claim 1, the wording of the claim being slightly amended to overcome the deficiencies given under point VIII below:

"A multiple-nip calender comprising a moistening arrangement for moistening a fibre web to be calendered in the calender, the calender further comprising a set of steel and polymer coated rolls forming roll nips between the rolls, the moistening arrangement including a roll means that moistens the fibre web and that is located in a pocket adjacent to the line of the set of rolls, the pocket being formed by a space defined by the fibre web, one of the rolls in the set of rolls and said roll means, the fibre web contacting said roll in the set of rolls at two locations, approximately in roll nips on opposite sides of the roll mantle, when viewed from the longitudinal axis of the roll, and circulating around the roll means."

The subject-matter of present claim 1 differs from this disclosure in that the roll means comprises a damping unit and rolls guiding the fibre web relative to the damping unit.

The subject-matter of claim 1 is therefore novel (Article 33(2) PCT).

The technical problem to be solved by the present application can be seen in providing an increasing running length of the paper web on which it can be moistened, while preventing the generation of vibrations.

Document D1 discloses a moistening arrangement located in between a roll of the set of rolls and a guide roll. The moistening arrangement does not comprise rolls guiding the fibre web relative to its damping unit. Furthermore, document D1

discloses a pocket formed between a roll of the set of roll and two guide rolls. However, there is no moistening foreseen in this enlarged pocket. This document therefore does not suggest to arrange a moistening device in its enlarged pocket, nor to use there a particular type of moistening device.

Document D2 relates to a moistening device in general and discloses a roll means comprising a damping unit and rolls guiding the fibre web relative to the damping unit. Document D2 does not deal with the particular problems of calendering.

Therefore, the subject-matter of present claim 1 involves an inventive step (Article 33(3) PCT).

3. Claims 2 to 6 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.
4. The industrial applicability of the apparatus according to claims 1 to 6 is obvious (Article 33(4) PCT).

#### **Re Item VII**

##### **Certain defects in the international application**

To meet the requirements of Rule 5.1(a)(ii) PCT, the document D1 should have been identified in the description and the relevant background art disclosed therein should have been briefly discussed.

#### **Re Item VIII**

##### **Certain observations on the international application**

1. Claim 1 relates to a moistening arrangement in a multiple-nip calender. This formulation leaves doubt about the scope of the claim, since it is not clear whether the calender is part of the claimed subject-matter or is a separate unit not covered by the claim.

Furthermore, claim 1 defines the invention merely by reference to features relating to the calender itself.

In order to meet the requirements of Article 6 PCT, the claim should have therefore be directed to "a multiple-nip calender comprising a moistening

arrangement" rather than to "a moistening arrangement in a multiple-nip calender".

2. Claim 1 defines "a set of rolls" without giving any further limitations of the rolls used. Furthermore, the claims mentions "the idle rolls in the set of rolls". It therefore appears that one and the same feature of the claim is defined as "roll" and "idle roll". However, to meet the requirements of Article 6 PCT, the same feature has to be defined by the same wording.
3. Furthermore, claim 2 makes reference to "the reversing nip", while no such reversing nip has previously been defined. To meet the requirements of Article 6 PCT, the reversing nip should have been defined before.

Furthermore, in order to understand the meaning of this feature, it appears necessary to define the "set of rolls" as "a set of steel and polymer coated rolls".

o